



GAMMA RAY

2" = 100' FEET MD

COMPANY : EXTRACTION OIL & GAS  
 WELL : JANSSEN 8  
 FIELD : WATTENBERG  
 COUNTY : WELD  
 STATE : COLORADO  
 COUNTRY : U.S.A.  
 UWI : 05-123-42357-00

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WELL LOCATION  
 LAT:40°30'10.289"N LONG:104°41'17.786"W  
 N:1427064.83 ft E:3225727.94 ft  
 SEC:8 TWP:6N RANGE:65W

OTHER SERVICES  
 DIRECTIONAL  
 ROP

DEPTH REF. : RKB  
 REF. HEIGHT : 24.500 ft RKB to Ground Level  
 GROUND LEVEL : 4776.000 ft G.L. to MEAN SEA LEVEL

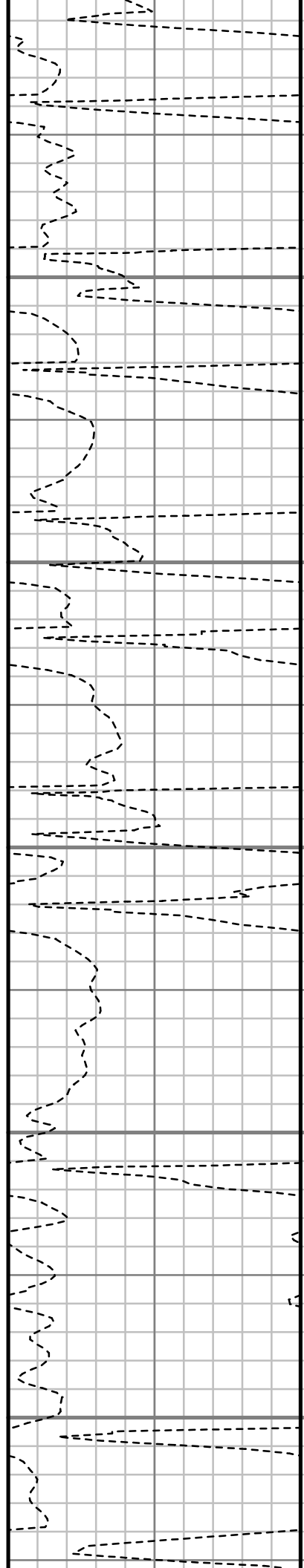
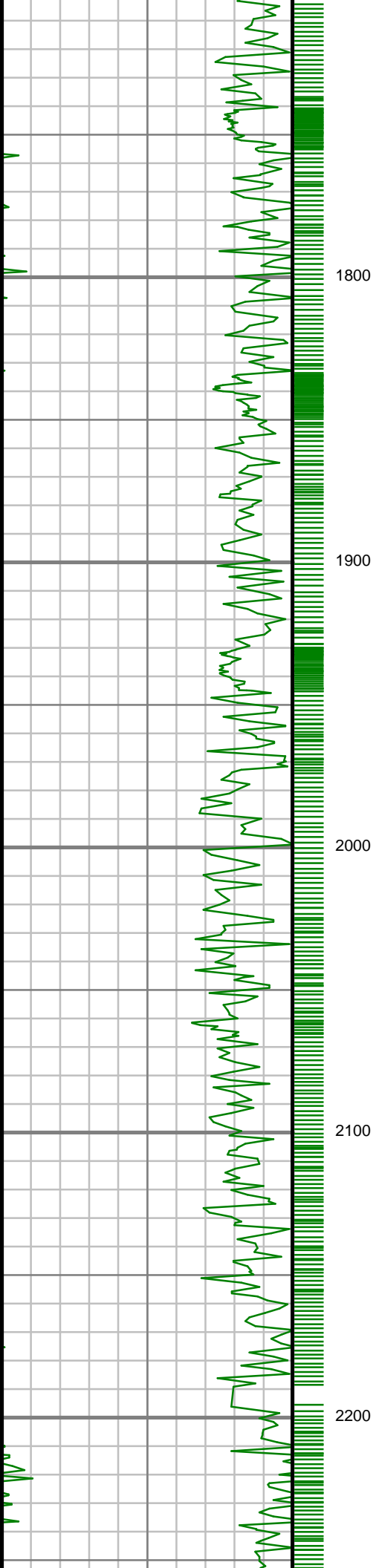
BOREHOLE RECORD			DEVIATION RECORD		
HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft
13.5	0	1554	0 - 4	0	1560
7.875	1554	11410	4 - 12	1560	6623
			12 - 90	6623	7576
			90 - 92	7576	11410

CASING RECORD		
CASING SIZE in	FROM ft	TO ft
9.625	0	1543

DRILLING CO. : PATTERSON  
 RIG : 346  
 LWD UNIT NO. : DISTRICT : CASPER  
 SPUD DATE : 11/15/2015  
 LWD START DATE : 11/19/2015 DEPTH : 1550 ft  
 LWD END DATE : 11/21/2015 DEPTH : 11/21/2015  
 TOTAL DEPTH : 11410 ft

Run Data	RUN NUMBER	START DATE	START TIME	END DATE	END TIME	DEPTH IN (ft)	DEPTH OUT (ft)	LOG TOP (ft)	LOG BOTTOM (ft)	HOLE SIZE (in)	MUD DATA @ (ft)	MUD TYPE	DENSITY (lb / gal)	VISCOSITY (s / qt)	pH	FLUID LOSS (cm <sup>3</sup> / 30)	SALINITY (ppm)	Rm (ohmm @ deg F)	Rmf (ohmm @ deg F)	MAX TEMP (deg F)	Rm @ MAX TEMP (ohmm)	LWD ENGINEER #1	LWD ENGINEER #2	LWD ENGINEER #3	LOG WITNESS #1	LOG WITNESS #2
	1	11/19/2015	1700	11/21/2015	0740	1560	11410	1550	11410	7.875	6550	OIL-BASED	8.5	9	8.6	-	-	-	-	248	-	M. SMITH	S. NEJAD	-	-	-





S: 17 MD: 1775.00 ft  
Inc: 6.28 deg Az: 44.05  
deg TVD: 1771.81 ft

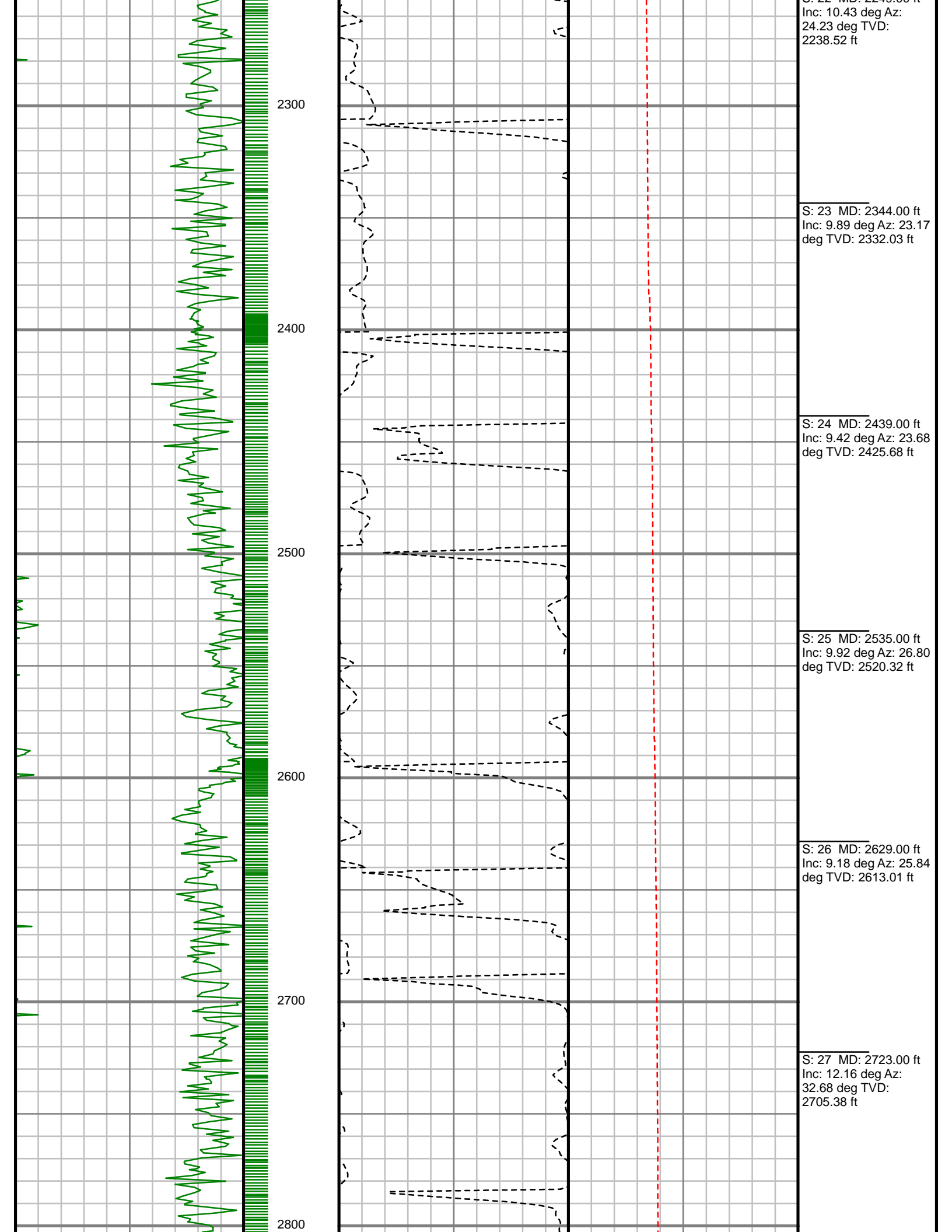
S: 18 MD: 1870.00 ft  
Inc: 7.63 deg Az: 40.94  
deg TVD: 1866.10 ft

S: 19 MD: 1965.00 ft  
Inc: 9.75 deg Az: 26.95  
deg TVD: 1960.02 ft

S: 20 MD: 2059.00 ft  
Inc: 12.35 deg Az:  
25.37 deg TVD:  
2052.27 ft

S: 21 MD: 2154.00 ft  
Inc: 11.40 deg Az:  
25.28 deg TVD:  
2145.24 ft

S: 22 MD: 2249.00 ft



S: 22 MD: 2243.00 ft  
Inc: 10.43 deg Az:  
24.23 deg TVD:  
2238.52 ft

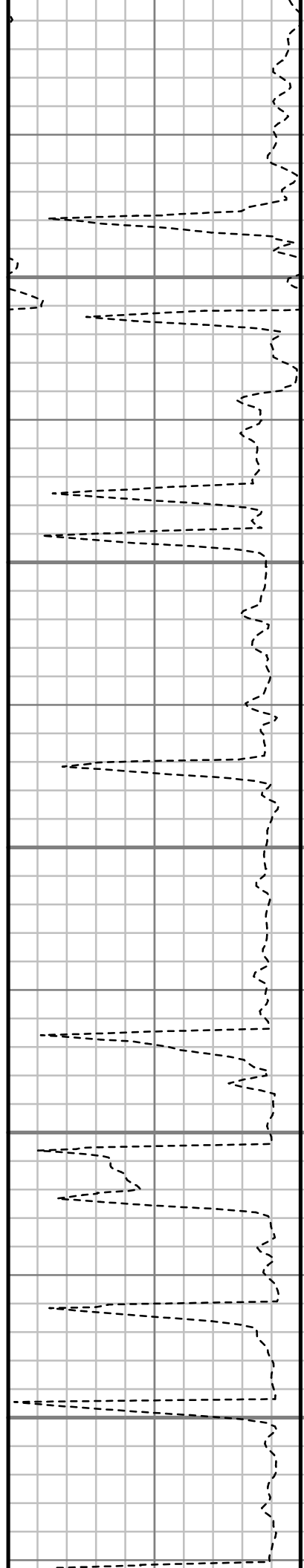
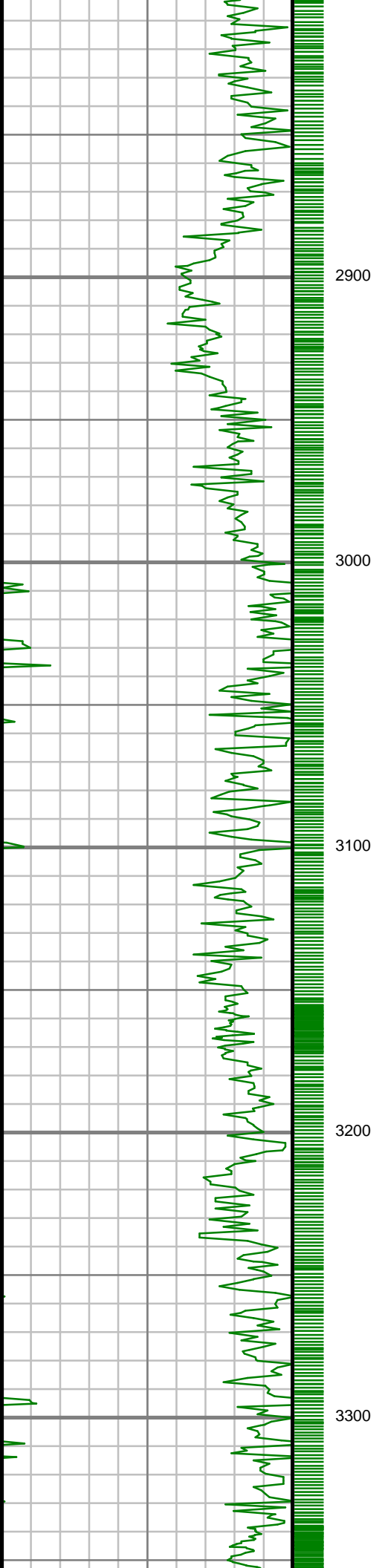
S: 23 MD: 2344.00 ft  
Inc: 9.89 deg Az: 23.17  
deg TVD: 2332.03 ft

S: 24 MD: 2439.00 ft  
Inc: 9.42 deg Az: 23.68  
deg TVD: 2425.68 ft

S: 25 MD: 2535.00 ft  
Inc: 9.92 deg Az: 26.80  
deg TVD: 2520.32 ft

S: 26 MD: 2629.00 ft  
Inc: 9.18 deg Az: 25.84  
deg TVD: 2613.01 ft

S: 27 MD: 2723.00 ft  
Inc: 12.16 deg Az:  
32.68 deg TVD:  
2705.38 ft



S: 28 MD: 2818.00 ft  
Inc: 10.99 deg Az:  
33.26 deg TVD:  
2798.45 ft

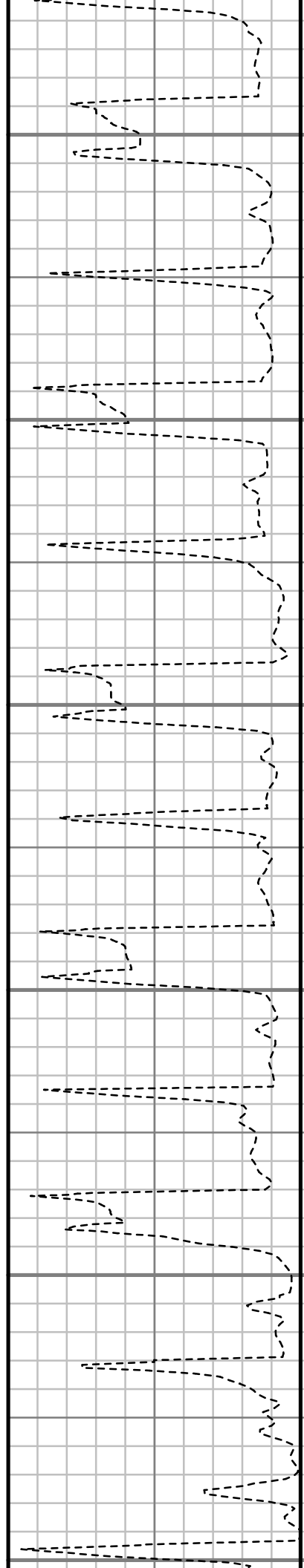
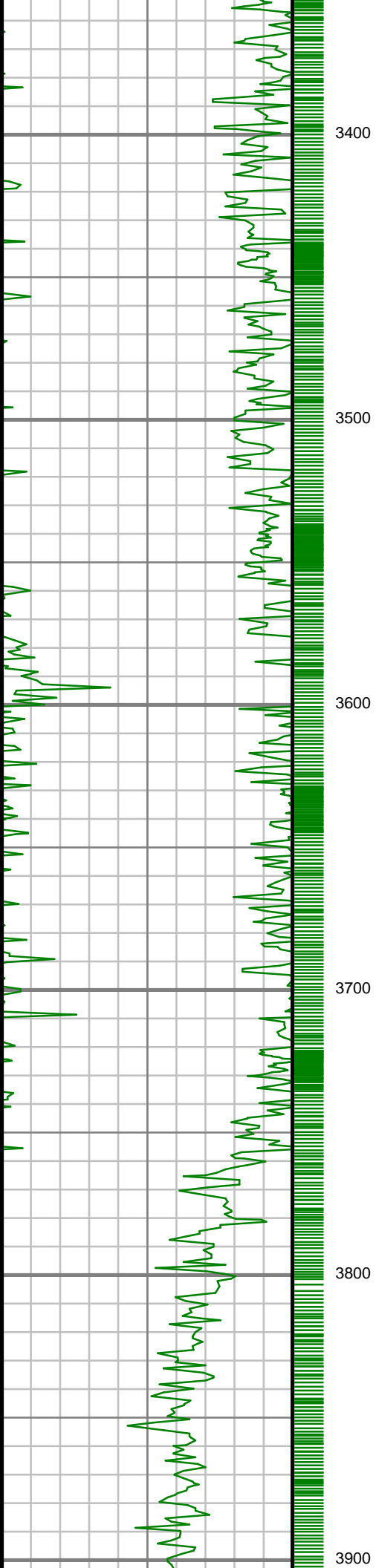
S: 29 MD: 2913.00 ft  
Inc: 10.60 deg Az:  
31.40 deg TVD:  
2891.77 ft

S: 30 MD: 3009.00 ft  
Inc: 10.30 deg Az:  
30.16 deg TVD:  
2986.17 ft

S: 31 MD: 3103.00 ft  
Inc: 8.52 deg Az: 31.05  
deg TVD: 3078.90 ft

S: 32 MD: 3198.00 ft  
Inc: 8.57 deg Az: 31.06  
deg TVD: 3172.85 ft

S: 33 MD: 3294.00 ft  
Inc: 9.62 deg Az: 34.28  
deg TVD: 3267.64 ft



S: 34 MD: 3389.00 ft  
Inc: 8.48 deg Az: 32.32  
deg TVD: 3361.46 ft

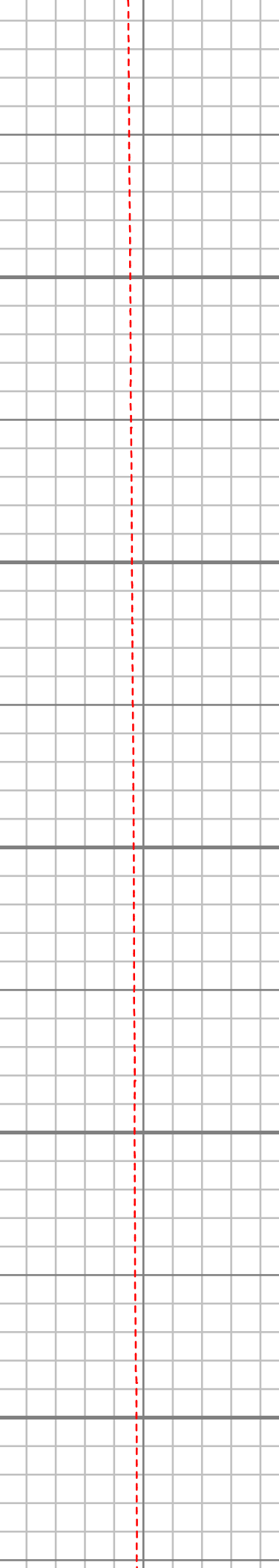
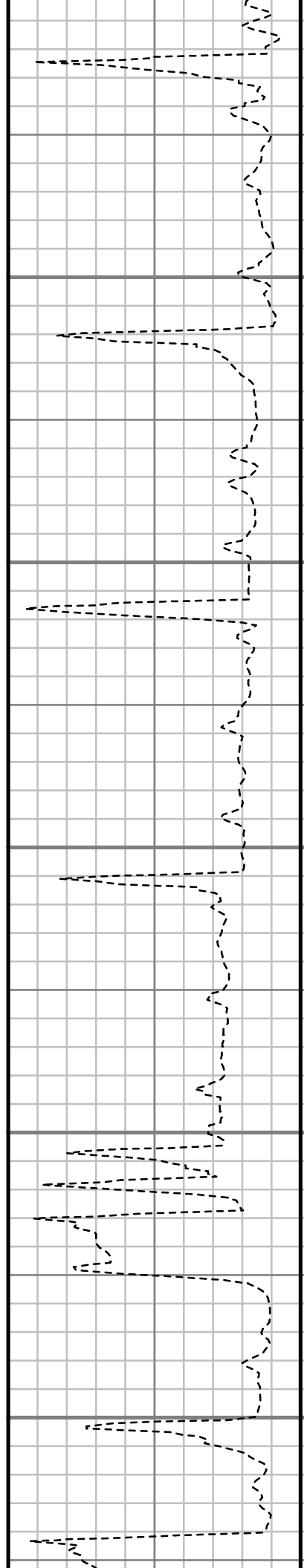
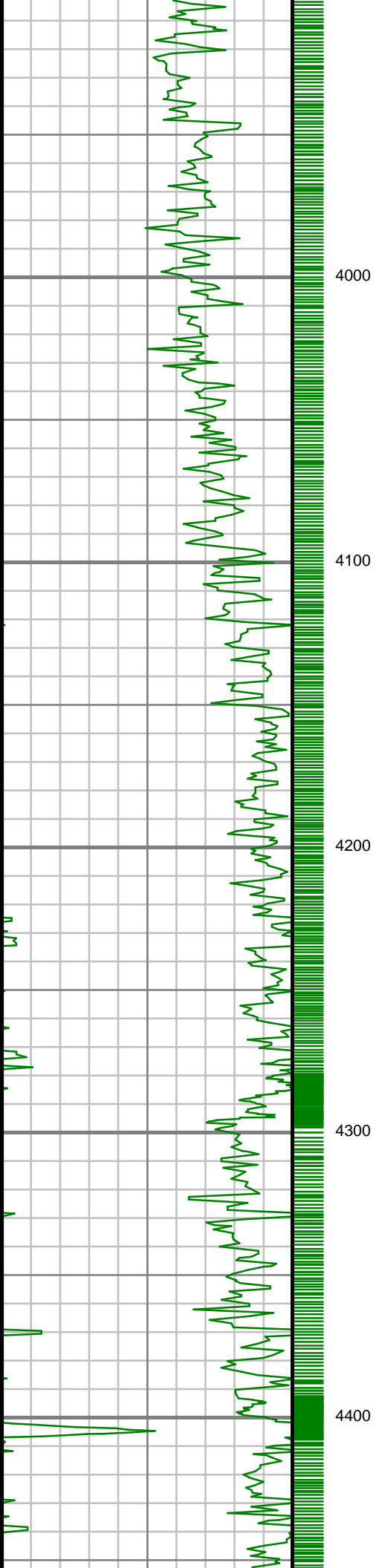
S: 35 MD: 3484.00 ft  
Inc: 9.18 deg Az: 27.63  
deg TVD: 3455.33 ft

S: 36 MD: 3579.00 ft  
Inc: 9.51 deg Az: 29.85  
deg TVD: 3549.07 ft

S: 37 MD: 3674.00 ft  
Inc: 10.53 deg Az:  
28.96 deg TVD:  
3642.63 ft

S: 38 MD: 3770.00 ft  
Inc: 12.84 deg Az:  
30.23 deg TVD:  
3736.63 ft

S: 39 MD: 3865.00 ft  
Inc: 14.41 deg Az:  
29.74 deg TVD:  
3828.95 ft



S: 40 MD: 3960.00 ft  
Inc: 14.68 deg Az:  
29.69 deg TVD:  
3920.90 ft

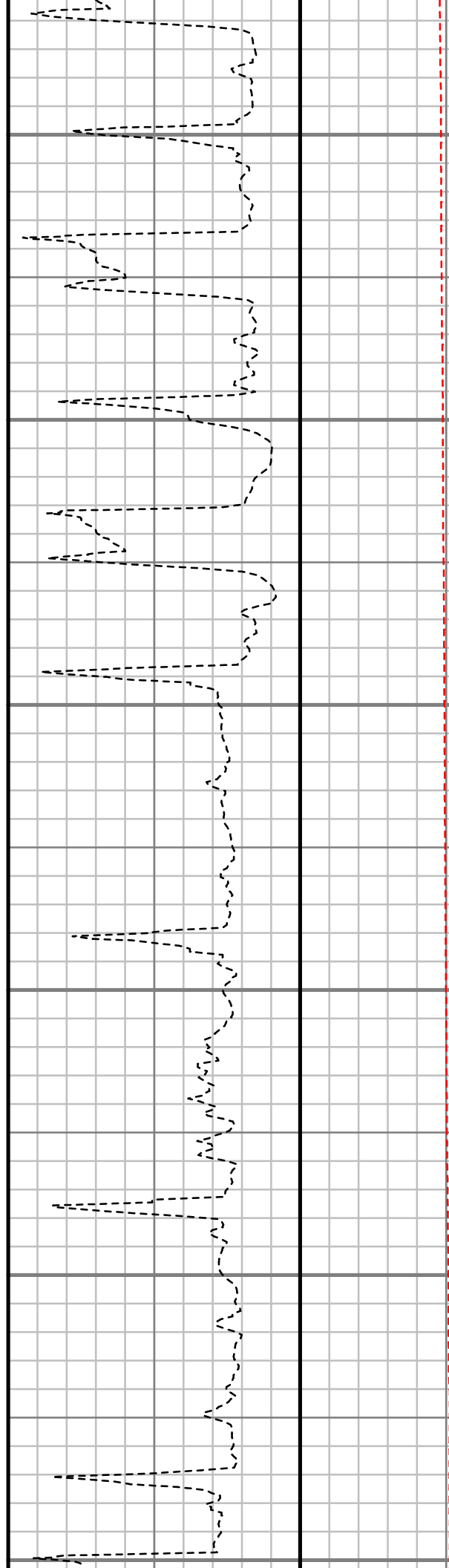
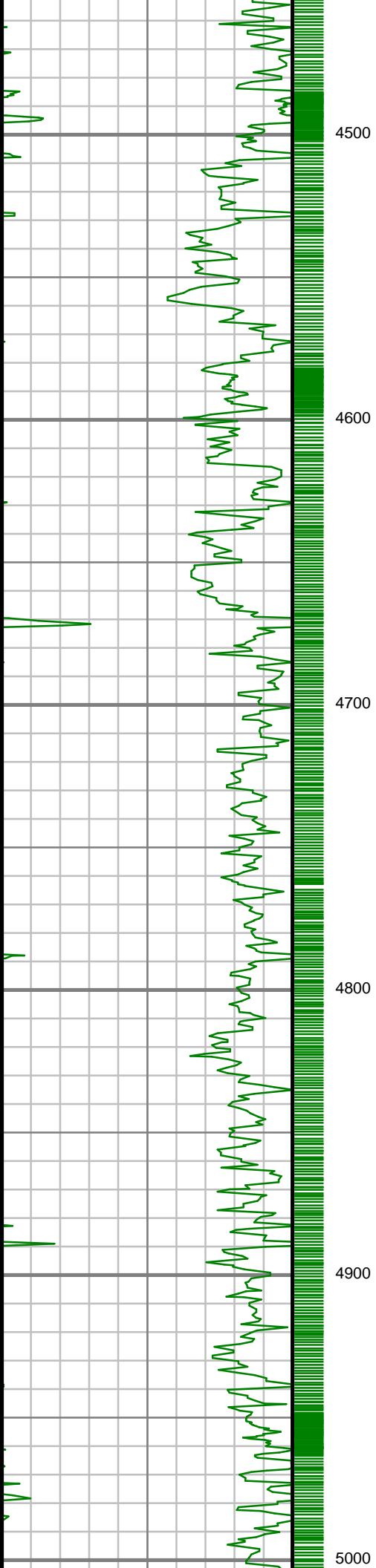
S: 41 MD: 4056.00 ft  
Inc: 15.22 deg Az:  
29.52 deg TVD:  
4013.66 ft

S: 42 MD: 4150.00 ft  
Inc: 14.58 deg Az:  
28.64 deg TVD:  
4104.50 ft

S: 43 MD: 4245.00 ft  
Inc: 12.47 deg Az:  
28.68 deg TVD:  
4196.86 ft

S: 44 MD: 4341.00 ft  
Inc: 12.19 deg Az:  
30.27 deg TVD:  
4290.64 ft

S: 45 MD: 4437.00 ft  
Inc: 10.49 deg Az:  
30.66 deg TVD:



S: 45 MD: 4384.76 ft

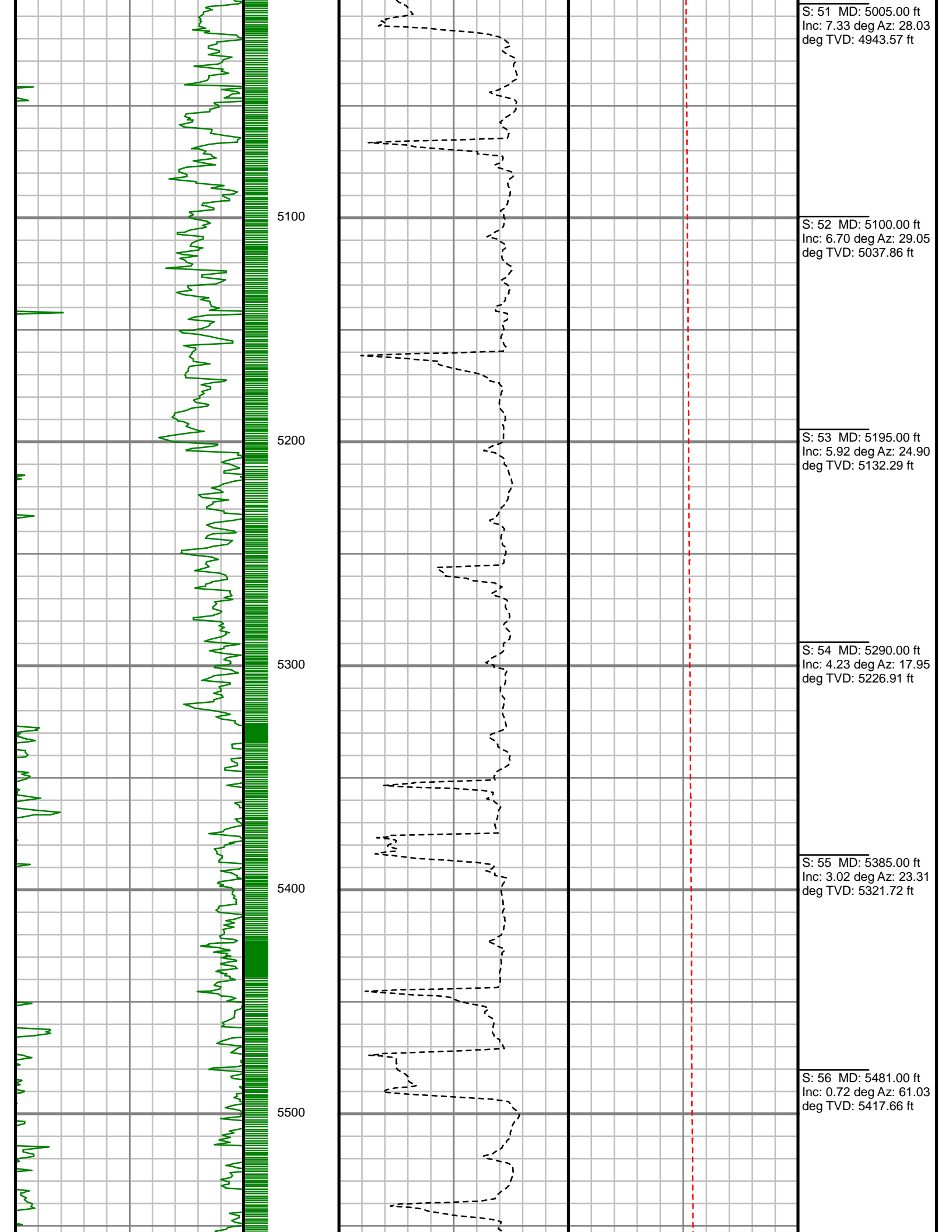
S: 46 MD: 4532.00 ft  
Inc: 10.88 deg Az:  
31.14 deg TVD:  
4478.12 ft

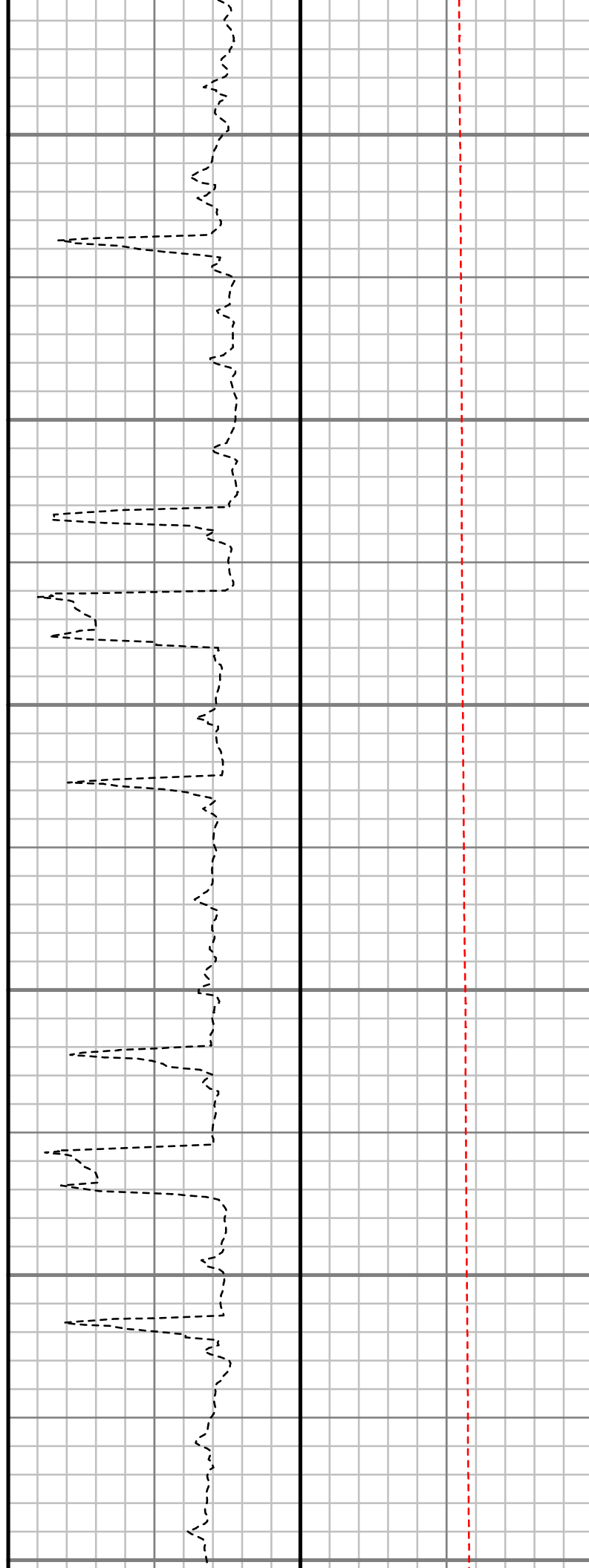
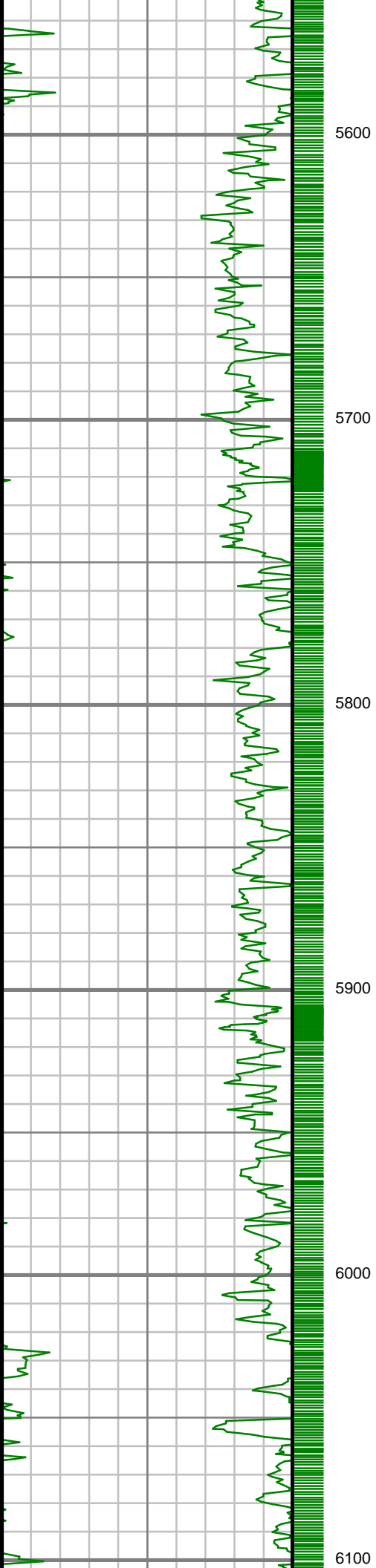
S: 47 MD: 4626.00 ft  
Inc: 11.64 deg Az:  
29.37 deg TVD:  
4570.31 ft

S: 48 MD: 4721.00 ft  
Inc: 12.24 deg Az:  
26.85 deg TVD:  
4663.25 ft

S: 49 MD: 4816.00 ft  
Inc: 9.69 deg Az: 25.75  
deg TVD: 4756.51 ft

S: 50 MD: 4910.00 ft  
Inc: 7.84 deg Az: 24.65  
deg TVD: 4849.41 ft





S: 57 MD: 5576.00 ft  
Inc: 0.62 deg Az: 205.90 deg TVD: 5512.66 ft

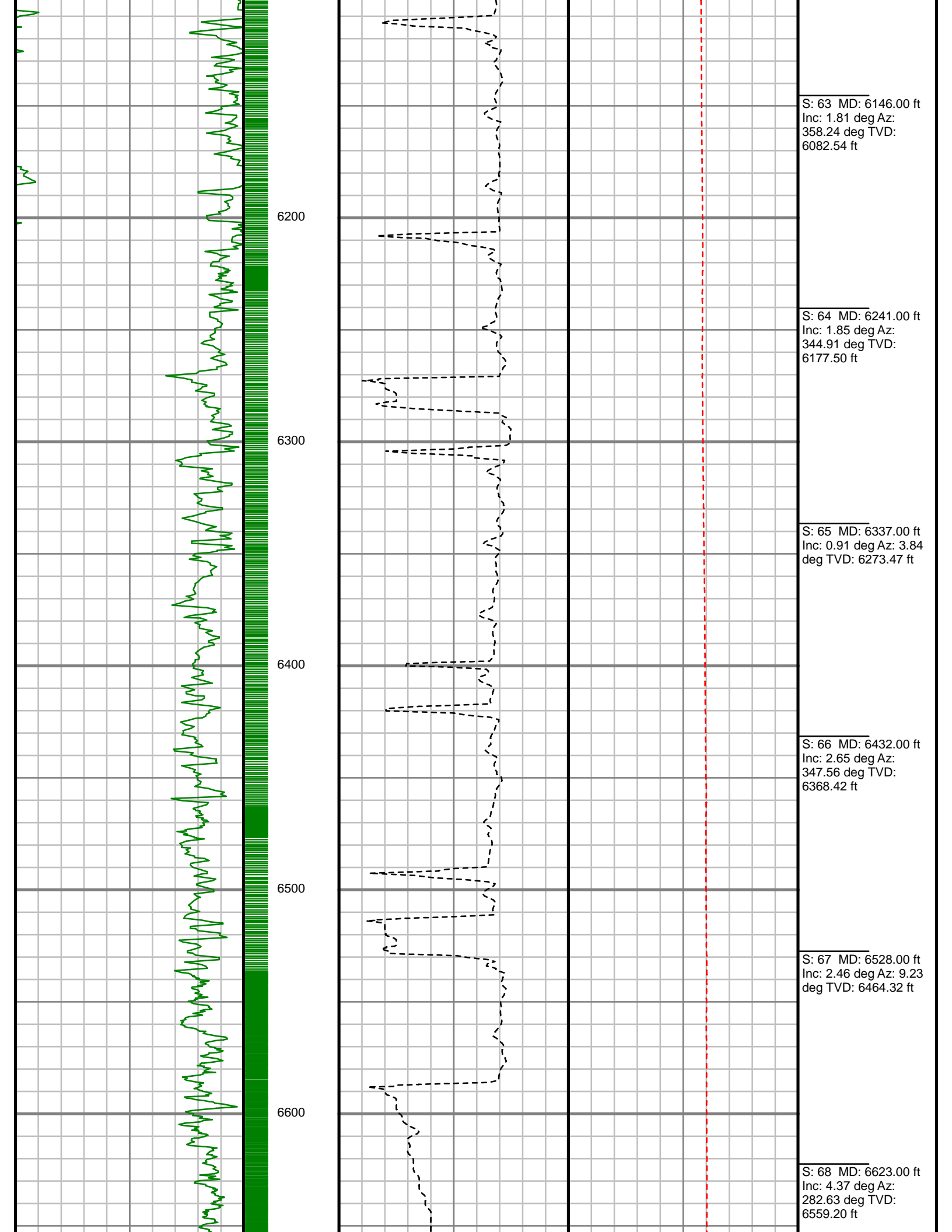
S: 58 MD: 5672.00 ft  
Inc: 1.38 deg Az: 236.95 deg TVD: 5608.65 ft

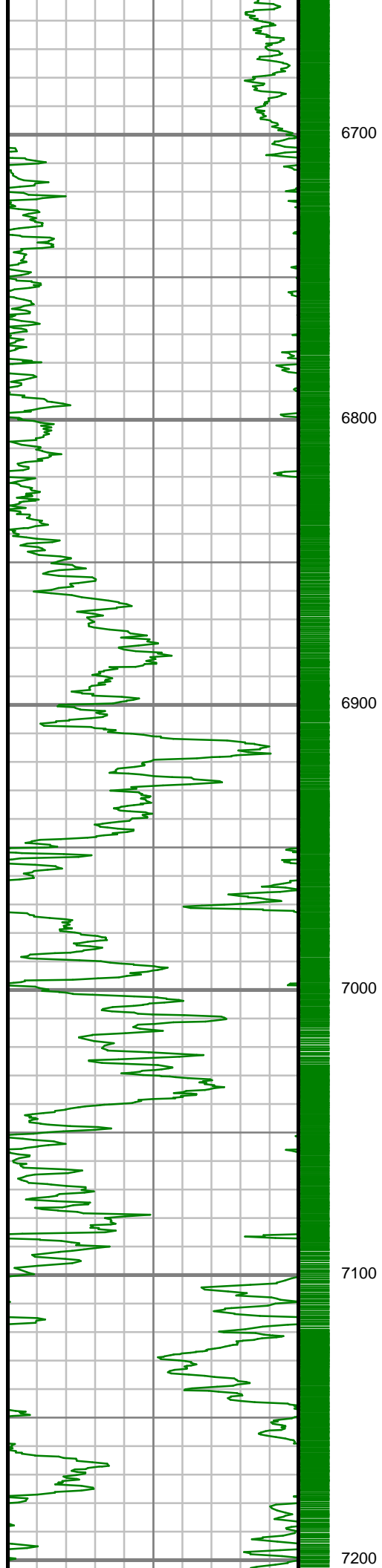
S: 59 MD: 5767.00 ft  
Inc: 1.15 deg Az: 213.14 deg TVD: 5703.62 ft

S: 60 MD: 5862.00 ft  
Inc: 1.21 deg Az: 165.87 deg TVD: 5798.61 ft

S: 61 MD: 5957.00 ft  
Inc: 0.53 deg Az: 10.02 deg TVD: 5893.60 ft

S: 62 MD: 6051.00 ft  
Inc: 1.55 deg Az: 9.10 deg TVD: 5987.58 ft





6700

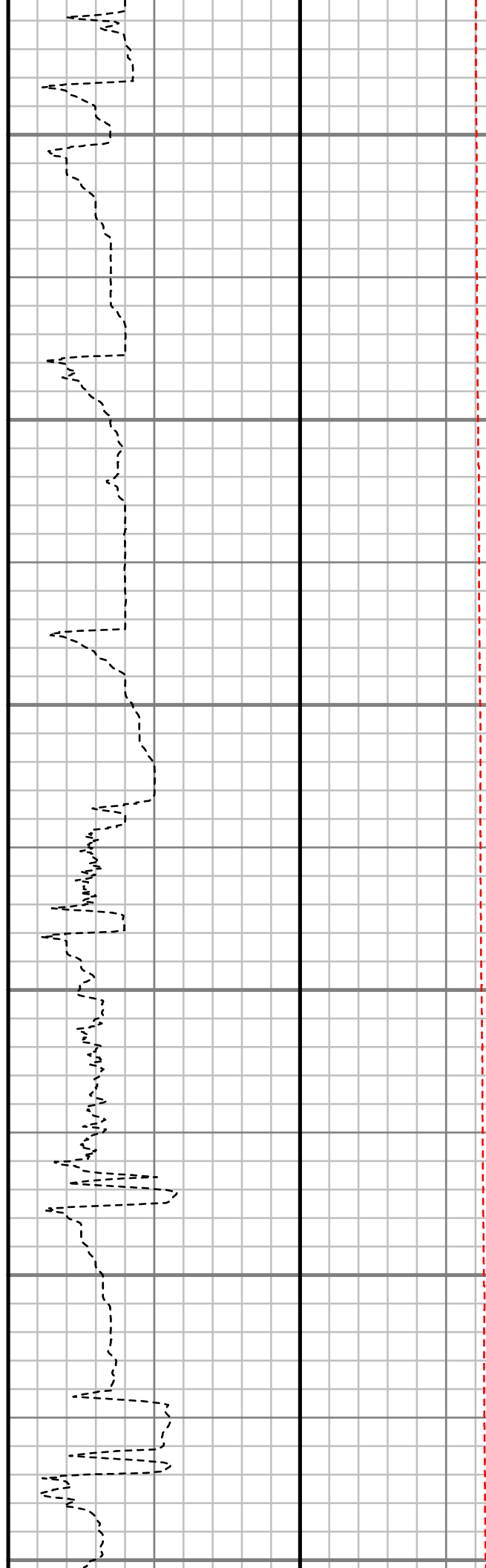
6800

6900

7000

7100

7200



S: 69 MD: 6719.00 ft  
Inc: 9.14 deg Az:  
282.88 deg TVD:  
6654.51 ft

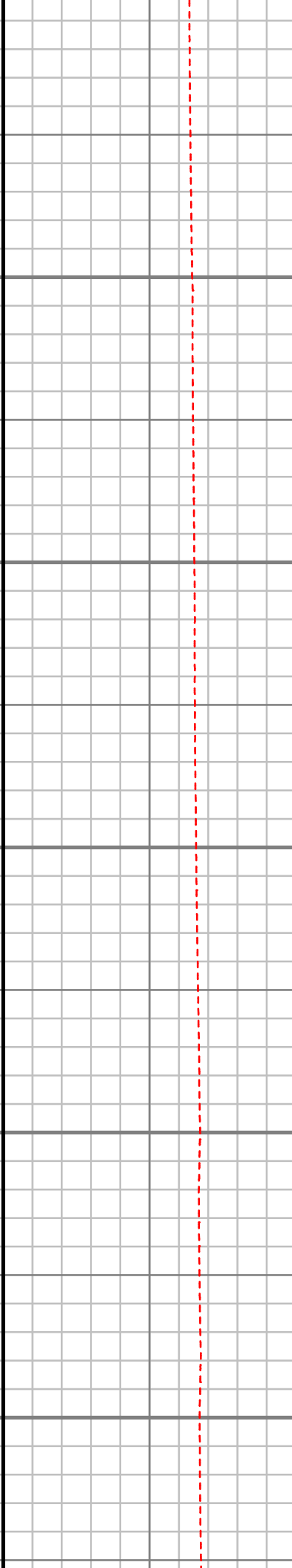
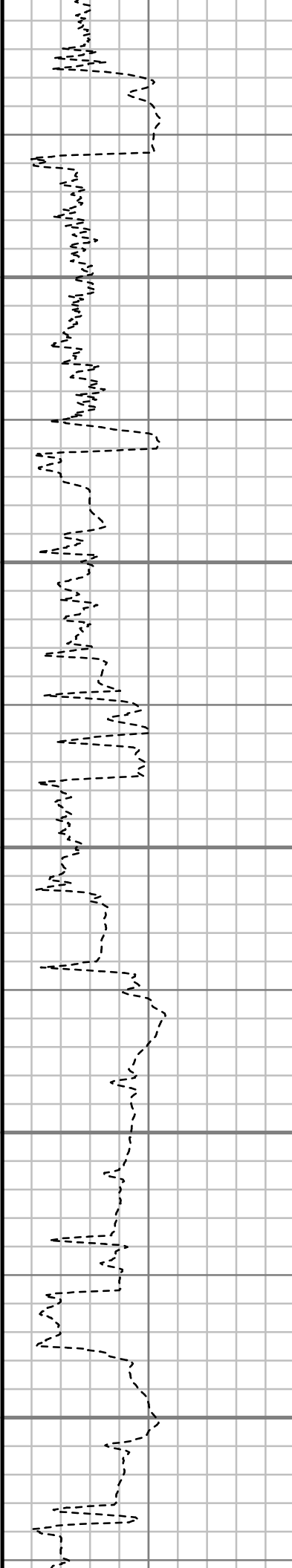
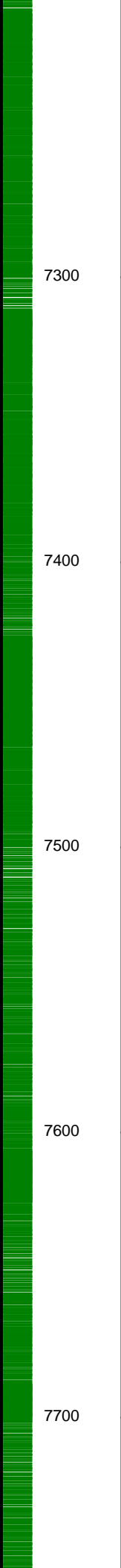
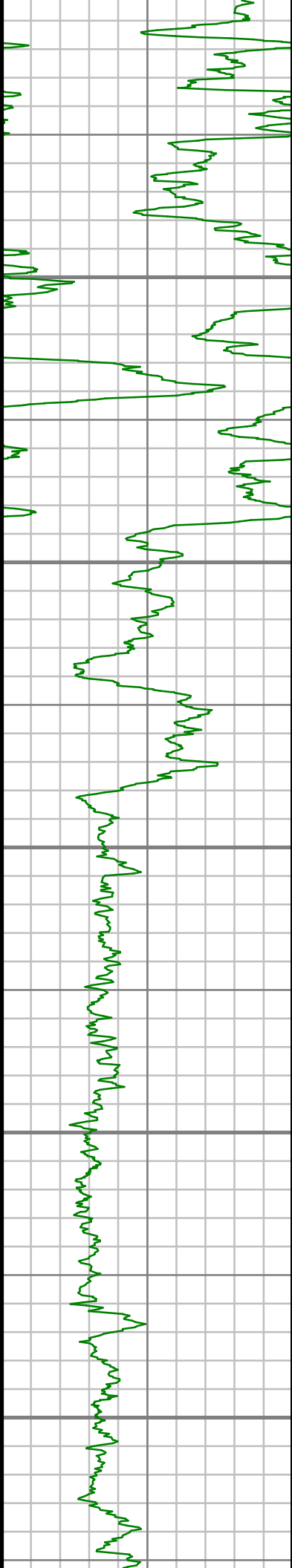
S: 70 MD: 6814.00 ft  
Inc: 19.82 deg Az:  
279.88 deg TVD:  
6746.35 ft

S: 71 MD: 6910.00 ft  
Inc: 31.01 deg Az:  
280.66 deg TVD:  
6832.92 ft

S: 72 MD: 7005.00 ft  
Inc: 37.13 deg Az:  
269.39 deg TVD:  
6911.66 ft

S: 73 MD: 7100.00 ft  
Inc: 48.70 deg Az:  
266.46 deg TVD:  
6981.13 ft

S: 74 MD: 7195.00 ft



Inc: 56.37 deg Az:  
268.54 deg TVD:  
7038.88 ft

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S: 75 MD: 7291.00 ft  
Inc: 62.10 deg Az:  
273.89 deg TVD:  
7087.99 ft

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S: 76 MD: 7386.00 ft  
Inc: 75.19 deg Az:  
275.54 deg TVD:  
7122.52 ft

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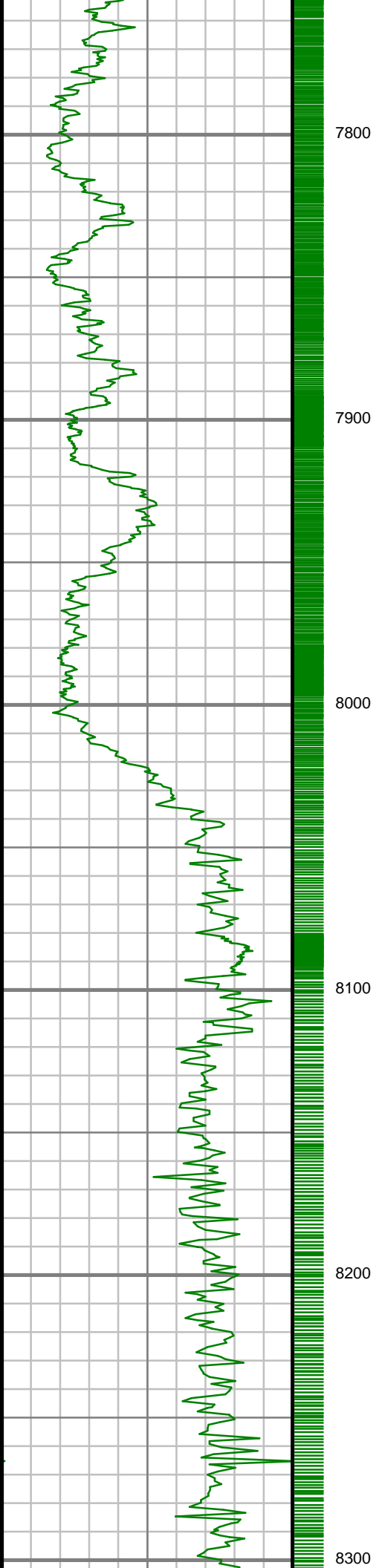
S: 77 MD: 7481.00 ft  
Inc: 83.71 deg Az:  
271.77 deg TVD:  
7139.90 ft

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S: 78 MD: 7576.00 ft  
Inc: 90.17 deg Az:  
270.53 deg TVD:  
7144.97 ft

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S: 79 MD: 7670.00 ft  
Inc: 88.45 deg Az:  
270.84 deg TVD:  
7146.10 ft



7800

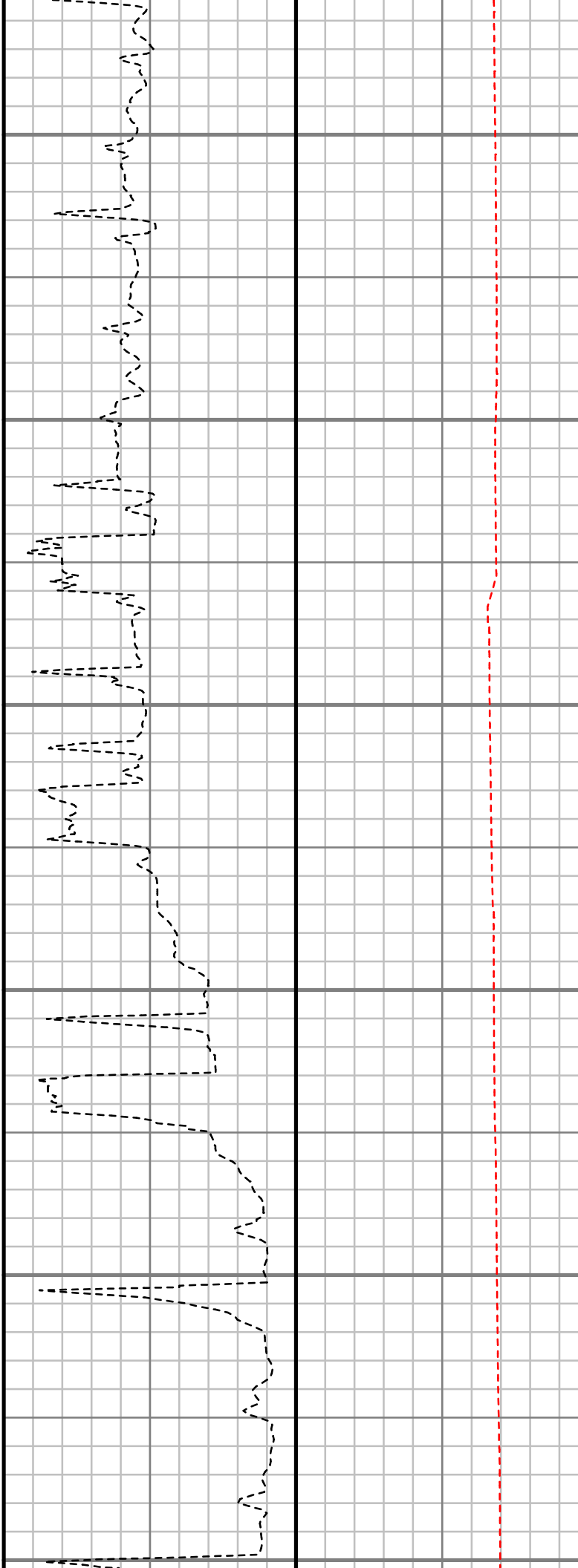
7900

8000

8100

8200

8300



S: 80 MD: 7765.00 ft  
Inc: 85.83 deg Az:  
271.17 deg TVD:  
7150.84 ft

S: 81 MD: 7860.00 ft  
Inc: 85.40 deg Az:  
270.74 deg TVD:  
7158.10 ft

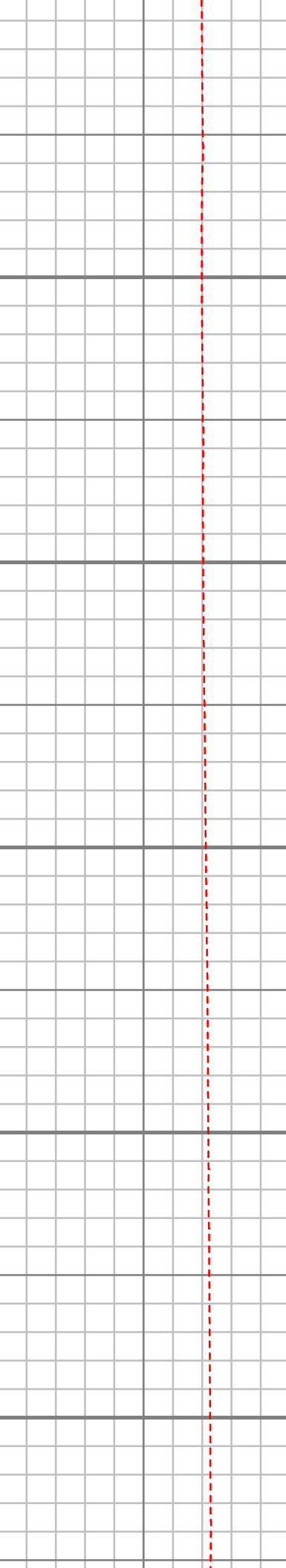
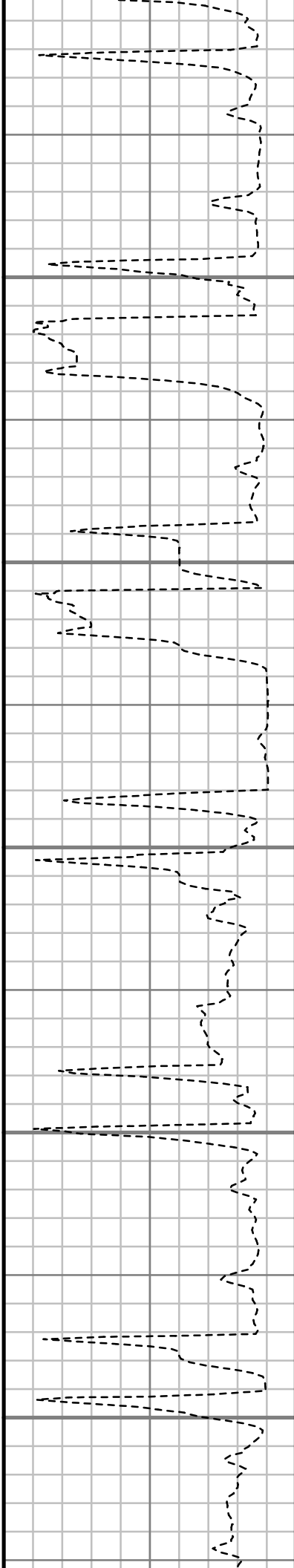
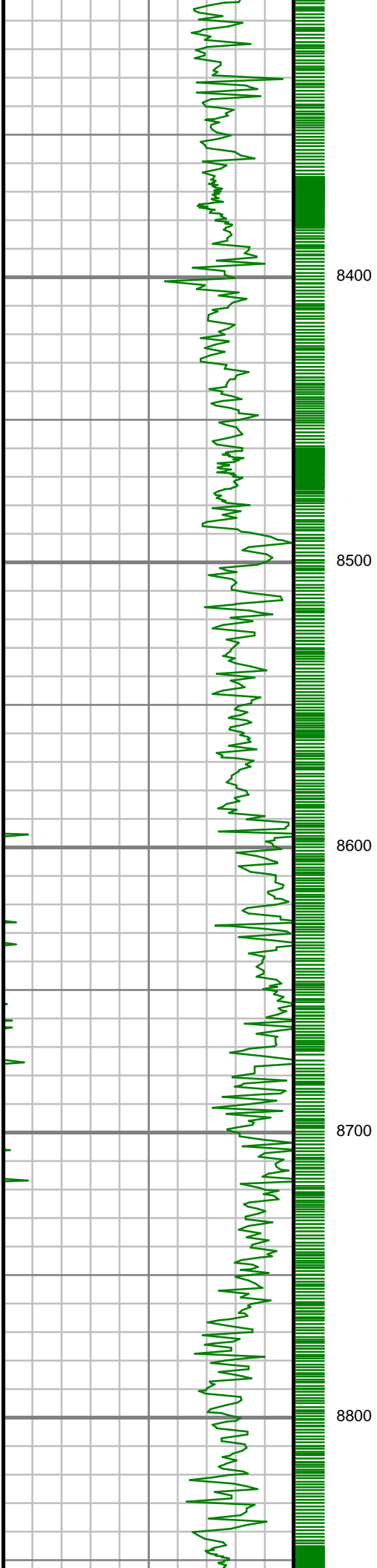
S: 82 MD: 7955.00 ft  
Inc: 86.95 deg Az:  
269.56 deg TVD:  
7164.45 ft

S: 83 MD: 8050.00 ft  
Inc: 88.49 deg Az:  
271.74 deg TVD:  
7168.23 ft

S: 84 MD: 8145.00 ft  
Inc: 88.45 deg Az:  
271.46 deg TVD:  
7170.77 ft

S: 85 MD: 8240.00 ft  
Inc: 88.89 deg Az:  
271.29 deg TVD:  
7172.97 ft





S: 86 MD: 8334.00 ft  
Inc: 90.37 deg Az:  
272.77 deg TVD:  
7173.57 ft

S: 87 MD: 8429.00 ft  
Inc: 89.83 deg Az:  
273.82 deg TVD:  
7173.40 ft

S: 88 MD: 8523.00 ft  
Inc: 88.56 deg Az:  
273.22 deg TVD:  
7174.73 ft

S: 89 MD: 8617.00 ft  
Inc: 88.66 deg Az:  
273.04 deg TVD:  
7177.01 ft

S: 90 MD: 8712.00 ft  
Inc: 90.60 deg Az:  
274.23 deg TVD:  
7177.63 ft

S: 91 MD: 8807.00 ft  
Inc: 91.38 deg Az:  
274.09 deg TVD:  
7175.99 ft



8900

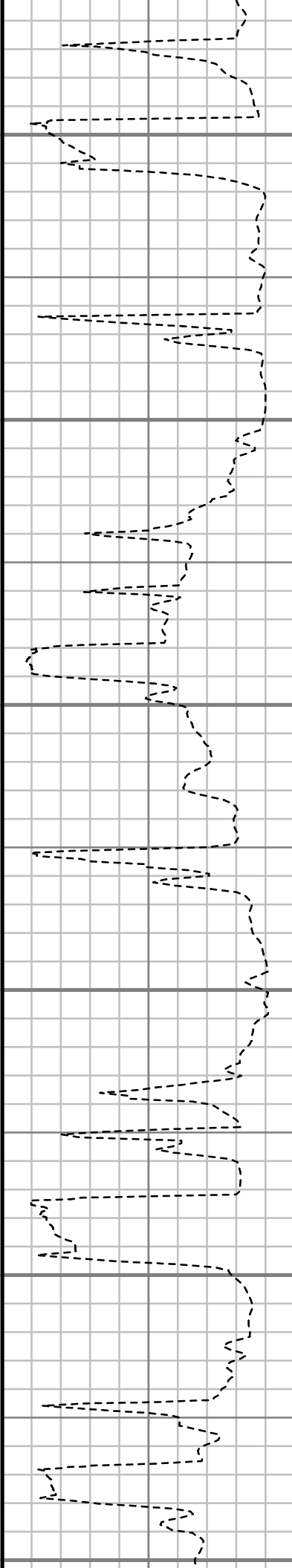
9000

9100

9200

9300

9400



S: 92 MD: 8902.00 ft  
Inc: 89.60 deg Az:  
273.62 deg TVD:  
7175.18 ft

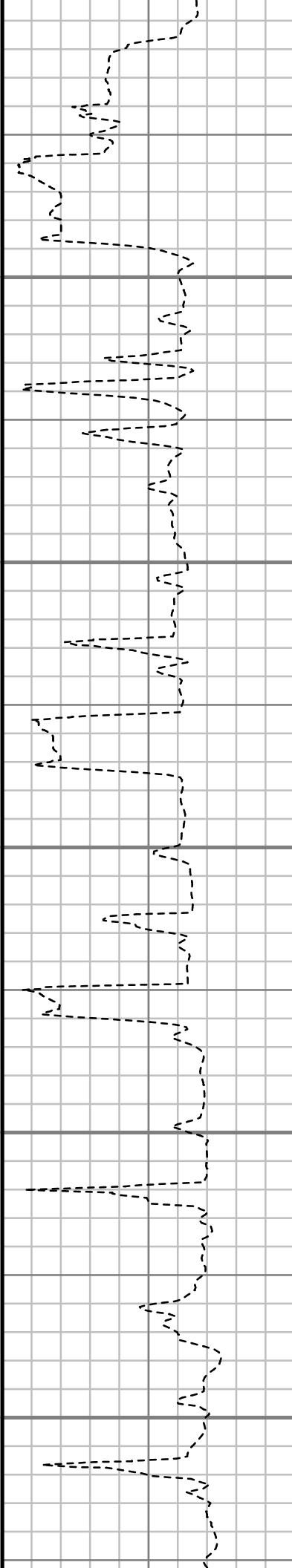
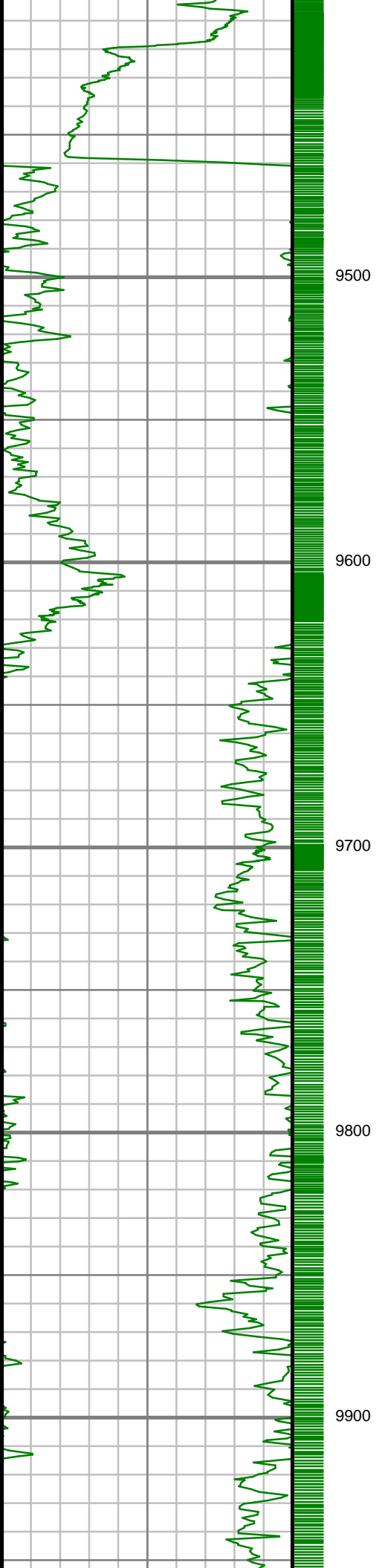
S: 93 MD: 8997.00 ft  
Inc: 89.16 deg Az:  
273.08 deg TVD:  
7176.21 ft

S: 94 MD: 9091.00 ft  
Inc: 86.51 deg Az:  
271.90 deg TVD:  
7179.76 ft

S: 95 MD: 9187.00 ft  
Inc: 85.33 deg Az:  
270.89 deg TVD:  
7186.59 ft

S: 96 MD: 9281.00 ft  
Inc: 87.07 deg Az:  
271.34 deg TVD:  
7192.81 ft

S: 97 MD: 9377.00 ft  
Inc: 87.68 deg Az:  
271.81 deg TVD:  
7197.20 ft



S: 98 MD: 9473.00 ft  
Inc: 90.77 deg Az:  
272.64 deg TVD:  
7198.50 ft

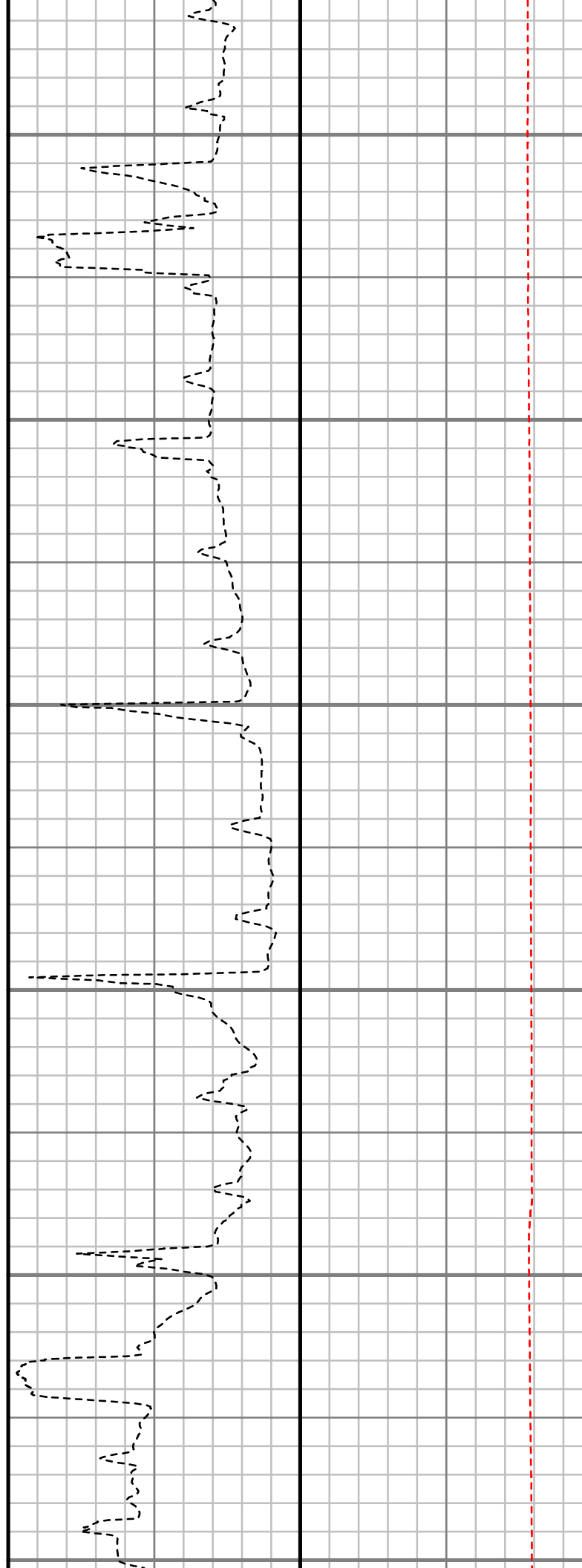
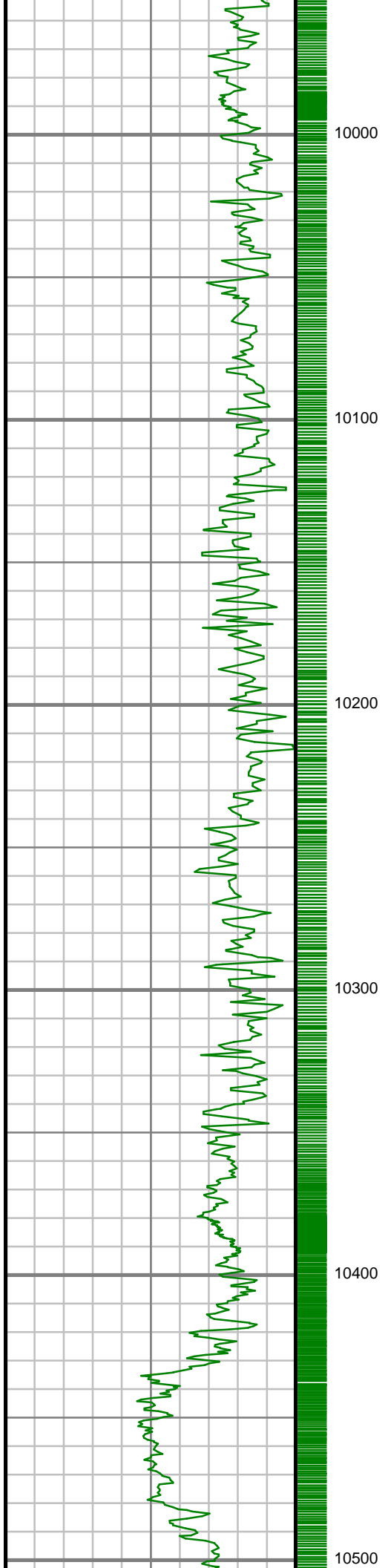
S: 99 MD: 9568.00 ft  
Inc: 92.09 deg Az:  
271.51 deg TVD:  
7196.13 ft

S: 100 MD: 9663.00 ft  
Inc: 92.29 deg Az:  
272.95 deg TVD:  
7192.50 ft

S: 101 MD: 9759.00 ft  
Inc: 91.08 deg Az:  
274.17 deg TVD:  
7189.69 ft

S: 102 MD: 9854.00 ft  
Inc: 91.34 deg Az:  
274.46 deg TVD:  
7187.68 ft

S: 103 MD: 9949.00 ft



S: 103 MD: 9945.00 ft  
Inc: 91.98 deg Az:  
275.33 deg TVD:  
7184.92 ft

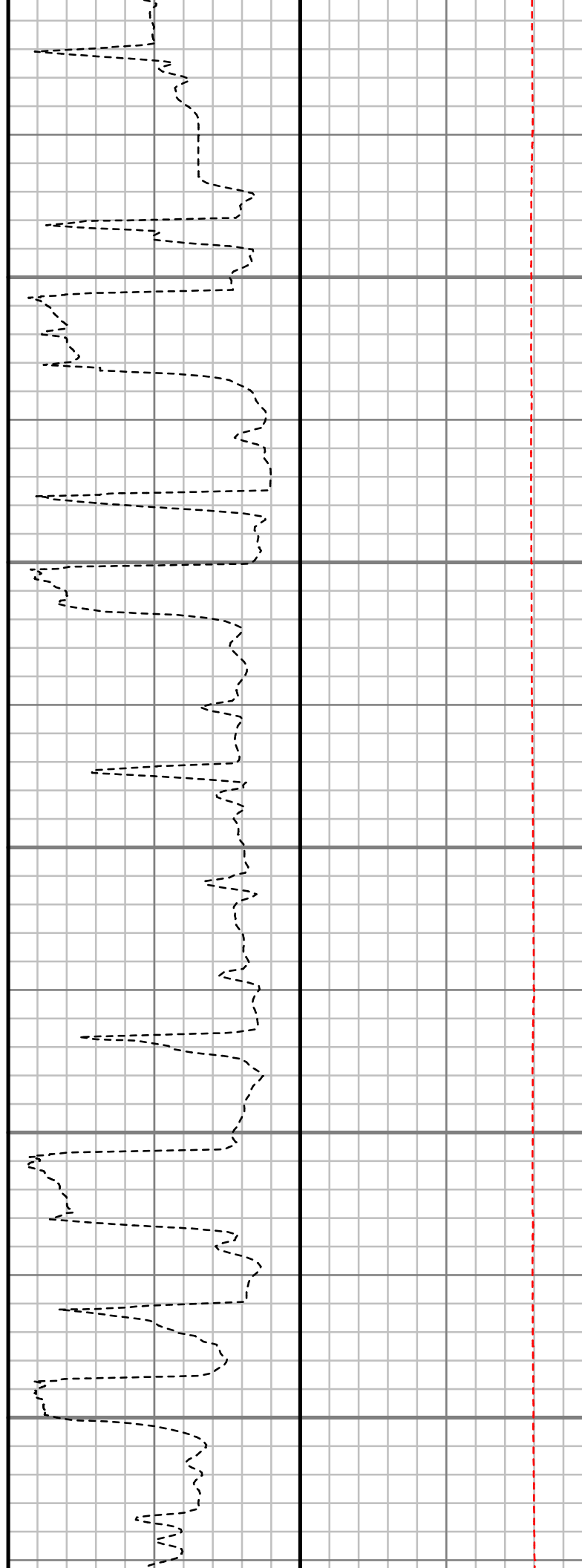
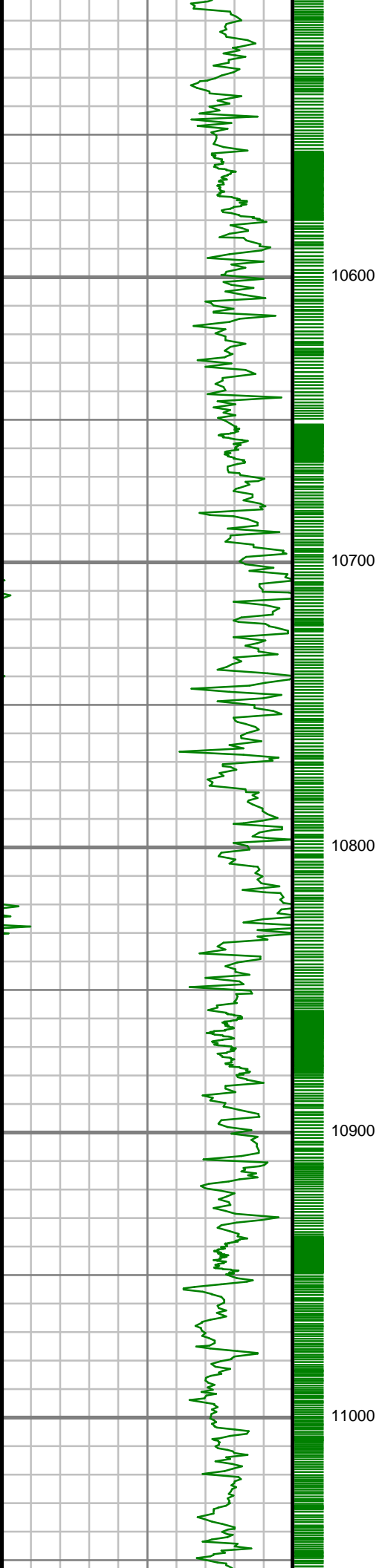
S: 104 MD: 10045.00 ft  
Inc: 90.67 deg Az:  
274.15 deg TVD:  
7182.70 ft

S: 105 MD: 10140.00 ft  
Inc: 90.13 deg Az:  
274.20 deg TVD:  
7182.03 ft

S: 106 MD: 10236.00 ft  
Inc: 90.37 deg Az:  
274.02 deg TVD:  
7181.61 ft

S: 107 MD: 10331.00 ft  
Inc: 91.08 deg Az:  
273.75 deg TVD:  
7180.42 ft

S: 108 MD: 10426.00 ft  
Inc: 90.34 deg Az:  
272.53 deg TVD:  
7179.25 ft



S: 109 MD: 10521.00 ft  
Inc: 86.58 deg Az:  
271.74 deg TVD:  
7181.80 ft

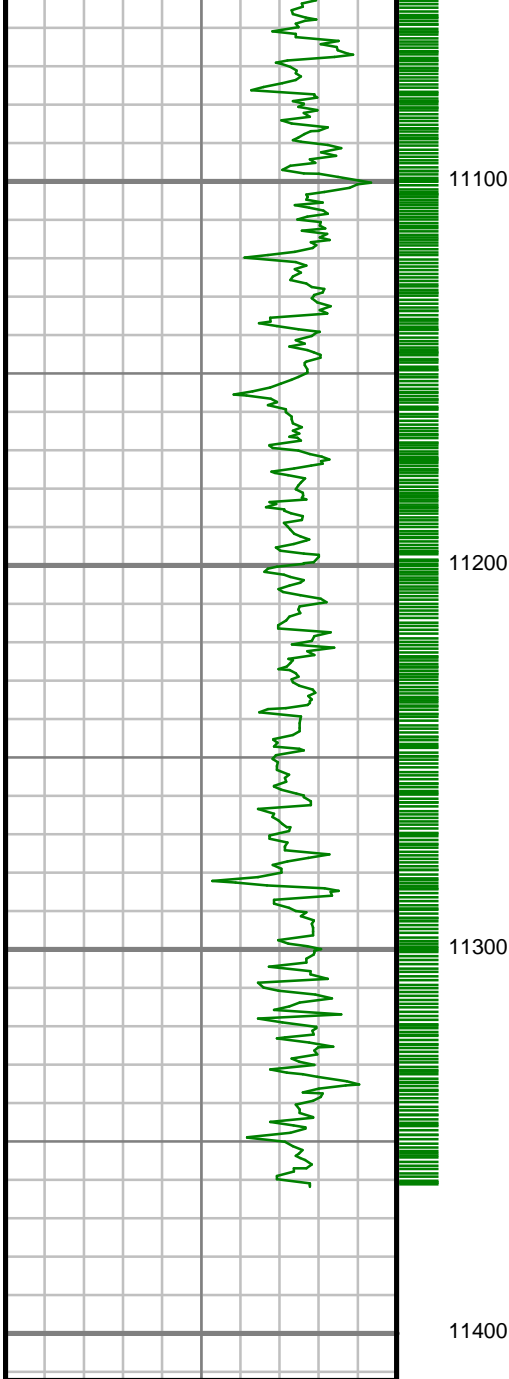
S: 110 MD: 10616.00 ft  
Inc: 87.75 deg Az:  
272.87 deg TVD:  
7186.50 ft

S: 111 MD: 10711.00 ft  
Inc: 90.20 deg Az:  
276.60 deg TVD:  
7188.19 ft

S: 112 MD: 10806.00 ft  
Inc: 91.95 deg Az:  
277.81 deg TVD:  
7186.41 ft

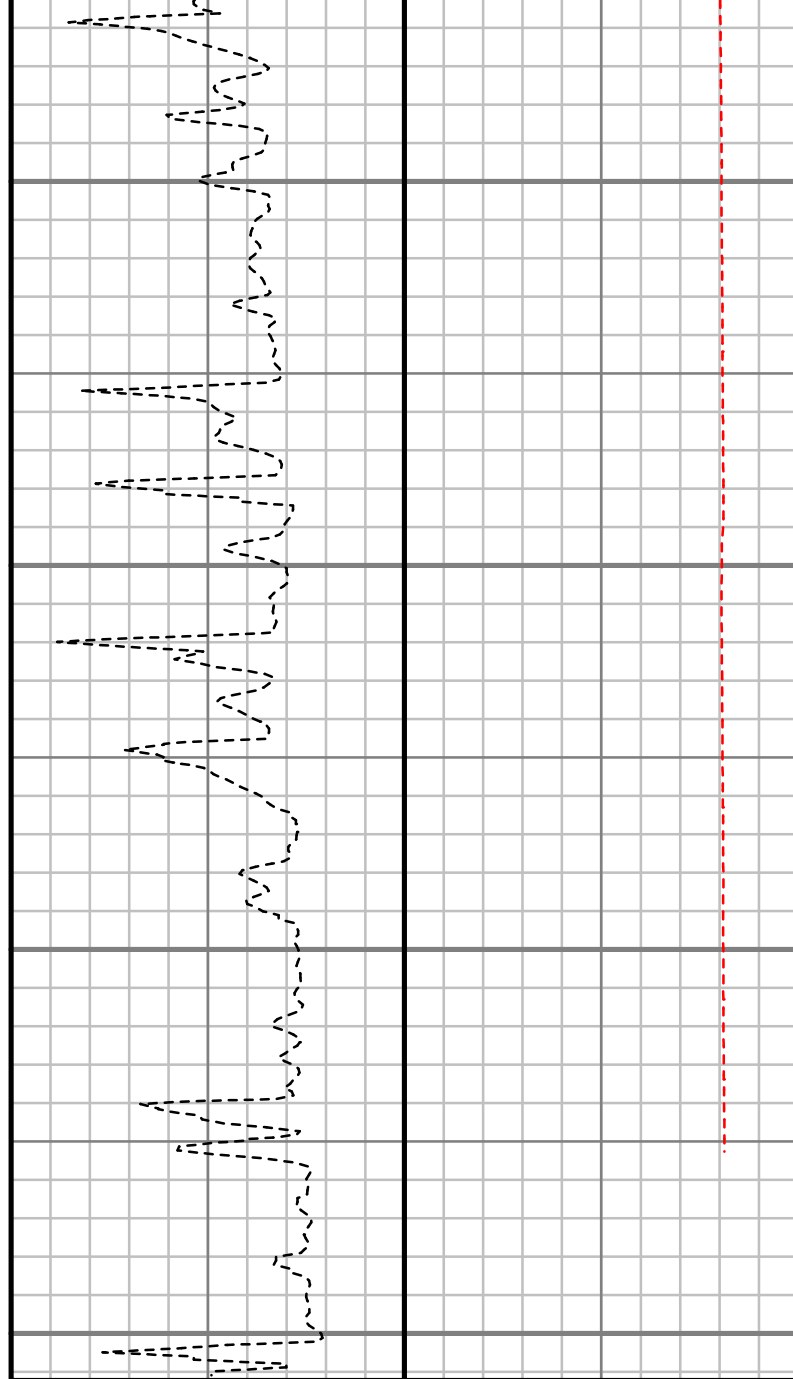
S: 113 MD: 10901.00 ft  
Inc: 92.68 deg Az:  
276.55 deg TVD:  
7182.57 ft

S: 114 MD: 10997.00 ft  
Inc: 90.03 deg Az:  
273.69 deg TVD:  
7180.29 ft



Gamma Ray (GR)		
0	Unit = aapi	150

MEASURED DEPTH  
1:5000 (ft)



Rate of Penetration (ROP)		
0	Unit = ft/hr	1000

Tool Temperature (T-TEMP)		
0	Unit = °F	300

<p>S: 115 MD: 11092.00 ft Inc: 89.46 deg Az: 273.04 deg TVD: 7180.71 ft</p>
<p>S: 116 MD: 11187.00 ft Inc: 88.39 deg Az: 270.37 deg TVD: 7182.49 ft</p>
<p>S: 117 MD: 11280.00 ft Inc: 88.96 deg Az: 269.90 deg TVD: 7184.64 ft</p>
<p>S: 118 MD: 11350.00 ft Inc: 89.56 deg Az: 270.09 deg TVD: 7185.54 ft</p>

Comments
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## MWD Survey Report

Well Location	JANSSEN
Well Name	JANSSEN 8
Survey Date	11/19/2015
Latitude	40°30'10.289"N
Longitude	104°41'17.786"W
Btotal	52641 nT
Dip	67.05 deg
Magnetic Declination	8.49 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (24.50 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 273.07Azim (deg)
Operator(s)	M. SMITH, S. NEJAD

**Well Notes**

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
204.00	0.24	10.45	204.00	-0.05	0.42	0.08	0.12
296.00	0.17	22.02	296.00	-0.12	0.74	0.16	0.09
388.00	1.12	31.80	387.99	-0.60	1.63	0.69	1.04
480.00	2.66	24.97	479.94	-1.83	4.33	2.06	1.69
574.00	2.66	26.50	573.84	-3.51	8.26	3.96	0.08
763.00	2.96	37.60	762.61	-8.02	16.05	8.89	0.33
857.00	3.38	38.00	856.47	-10.98	20.15	12.08	0.45
951.00	3.64	39.38	950.29	-14.34	24.64	15.68	0.29
1046.00	3.92	34.56	1045.08	-17.82	29.65	19.43	0.45
1140.00	4.28	31.78	1138.84	-21.18	35.28	23.10	0.44
1234.00	4.60	32.11	1232.56	-24.70	41.45	26.95	0.34
1330.00	4.57	30.60	1328.25	-28.33	48.00	30.95	0.13
1425.00	4.71	31.33	1422.94	-31.93	54.59	34.90	0.16
1486.00	4.86	28.65	1483.73	-34.23	59.00	37.44	0.44
1586.00	4.18	42.80	1583.42	-38.39	65.39	41.95	1.30
1681.00	3.93	39.79	1678.18	-42.55	70.43	46.39	0.34
1775.00	6.28	44.05	1771.81	-47.85	76.61	52.03	2.53
1870.00	7.63	40.94	1866.10	-55.13	85.10	59.77	1.47
1965.00	9.75	26.95	1960.02	-62.26	97.04	67.55	3.14

<b>MD</b> ft	<b>Inc</b> deg	<b>Azim</b> deg	<b>TVD</b> ft	<b>VS</b> ft	<b>+N/-S</b> ft	<b>+E/-W</b> ft	<b>DLS</b> °/100ft
2059.00	12.35	25.37	2052.27	-69.30	113.22	75.47	2.78
2154.00	11.40	25.28	2145.24	-76.70	130.89	83.83	1.00
2249.00	10.43	24.23	2238.52	-83.35	147.22	91.36	1.04
2344.00	9.89	23.17	2332.03	-89.26	162.56	98.10	0.60
2439.00	9.42	23.68	2425.68	-94.79	177.17	104.43	0.50
2535.00	9.92	26.80	2520.32	-100.89	191.75	111.32	0.76
2629.00	9.18	25.84	2613.01	-107.05	205.73	118.24	0.81
2723.00	12.16	32.68	2705.38	-114.85	220.81	126.85	3.44
2818.00	10.99	33.26	2798.45	-124.35	236.81	137.23	1.23
2913.00	10.60	31.40	2891.77	-133.05	251.84	146.74	0.55
3009.00	10.30	30.16	2986.17	-141.15	266.80	155.66	0.39
3103.00	8.52	31.05	3078.90	-148.24	280.04	163.47	1.91
3198.00	8.57	31.06	3172.85	-154.86	292.13	170.75	0.06
3294.00	9.62	34.28	3267.64	-162.38	304.88	178.96	1.21
3389.00	8.48	32.32	3361.46	-169.91	317.36	187.18	1.25
3484.00	9.18	27.63	3455.33	-176.48	329.99	194.44	1.06
3579.00	9.51	29.85	3549.07	-183.17	343.51	201.85	0.51
3674.00	10.53	28.96	3642.63	-190.49	357.91	209.96	1.09
3770.00	12.84	30.23	3736.63	-199.20	374.80	219.59	2.42
3865.00	14.41	29.74	3828.95	-209.32	394.19	230.77	1.66

<b>MD</b> ft	<b>Inc</b> deg	<b>Azim</b> deg	<b>TVD</b> ft	<b>VS</b> ft	<b>+N/-S</b> ft	<b>+E/-W</b> ft	<b>DLS</b> °/100ft
3960.00	14.68	29.69	3920.90	-220.03	414.92	242.59	0.28
4056.00	15.22	29.52	4013.66	-231.09	436.45	254.83	0.56
4150.00	14.58	28.64	4104.50	-241.69	457.57	266.58	0.72
4245.00	12.47	28.68	4196.86	-251.28	477.06	277.23	2.22
4341.00	12.19	30.27	4290.64	-260.40	494.91	287.32	0.46
4437.00	10.49	30.66	4384.76	-269.08	511.18	296.88	1.77
4532.00	10.88	31.14	4478.12	-277.30	526.30	305.93	0.42
4626.00	11.64	29.37	4570.31	-285.68	542.16	315.17	0.89
4721.00	12.24	26.85	4663.25	-293.99	559.50	324.42	0.83
4816.00	9.69	25.75	4756.51	-301.13	575.69	332.44	2.70
4910.00	7.84	24.65	4849.41	-306.54	588.64	338.55	1.98
5005.00	7.33	28.03	4943.57	-311.48	599.88	344.10	0.71
5100.00	6.70	29.05	5037.86	-316.47	610.08	349.64	0.68
5195.00	5.92	24.90	5132.29	-320.72	619.37	354.40	0.95
5290.00	4.23	17.95	5226.91	-323.44	627.15	357.54	1.89
5385.00	3.02	23.31	5321.72	-325.21	632.78	359.61	1.33
5481.00	0.72	61.03	5417.66	-326.59	635.40	361.14	2.59
5576.00	0.62	205.90	5512.66	-326.90	635.22	361.44	1.34
5672.00	1.38	236.95	5608.65	-325.76	634.13	360.24	0.95
5767.00	1.15	213.14	5703.62	-324.36	632.70	358.76	0.60

<b>MD</b> ft	<b>Inc</b> deg	<b>Azim</b> deg	<b>TVD</b> ft	<b>VS</b> ft	<b>+N/-S</b> ft	<b>+E/-W</b> ft	<b>DLS</b> °/100ft
5862.00	1.21	165.87	5798.61	-324.18	630.93	358.48	1.00
5957.00	0.53	10.02	5893.60	-324.53	630.39	358.80	1.80
6051.00	1.55	9.10	5987.58	-324.71	632.08	359.08	1.08
6146.00	1.81	358.24	6082.54	-324.72	634.84	359.24	0.43
6241.00	1.85	344.91	6177.50	-324.12	637.82	358.79	0.45
6337.00	0.91	3.84	6273.47	-323.64	640.08	358.44	1.07
6432.00	2.65	347.56	6368.42	-323.07	642.98	358.02	1.89
6528.00	2.46	9.23	6464.32	-322.69	647.18	357.87	1.02
6623.00	4.37	282.63	6559.20	-319.34	649.99	354.66	5.15
6719.00	9.14	282.88	6654.51	-308.21	652.49	343.64	4.97
6814.00	19.82	279.88	6746.35	-284.70	656.96	320.35	11.27
6910.00	31.01	280.66	6832.92	-243.90	664.35	279.88	11.66
7005.00	37.13	269.39	6911.66	-190.92	668.58	227.06	9.23
7100.00	48.70	266.46	6981.13	-126.64	666.06	162.55	12.35
7195.00	56.37	268.54	7038.88	-51.65	662.85	87.28	8.26
7291.00	62.10	273.89	7087.99	30.72	664.71	4.89	7.65
7386.00	75.19	275.54	7122.52	118.96	672.02	-83.09	13.87
7481.00	83.71	271.77	7139.90	212.24	677.93	-176.19	9.79
7576.00	90.17	270.53	7144.97	307.00	679.83	-270.98	6.92
7670.00	88.45	270.84	7146.10	400.91	680.95	-364.97	1.85

<b>MD</b> ft	<b>Inc</b> deg	<b>Azim</b> deg	<b>TVD</b> ft	<b>VS</b> ft	<b>+N/-S</b> ft	<b>+E/-W</b> ft	<b>DLS</b> °/100ft
7765.00	85.83	271.17	7150.84	495.72	682.62	-459.82	2.78
7860.00	85.40	270.74	7158.10	590.38	684.20	-554.53	0.65
7955.00	86.95	269.56	7164.45	685.04	684.45	-649.32	2.05
8050.00	88.49	271.74	7168.23	779.87	685.53	-744.23	2.81
8145.00	88.45	271.46	7170.77	874.81	688.18	-839.15	0.29
8240.00	88.89	271.29	7172.97	969.74	690.46	-934.10	0.50
8334.00	90.37	272.77	7173.57	1063.72	693.80	-1028.04	2.23
8429.00	89.83	273.82	7173.40	1158.71	699.26	-1122.88	1.24
8523.00	88.56	273.22	7174.73	1252.70	705.03	-1216.69	1.50
8617.00	88.66	273.04	7177.01	1346.67	710.16	-1310.52	0.22
8712.00	90.60	274.23	7177.63	1441.66	716.18	-1405.32	2.40
8807.00	91.38	274.09	7175.99	1536.63	723.07	-1500.05	0.82
8902.00	89.60	273.62	7175.18	1631.61	729.46	-1594.83	1.94
8997.00	89.16	273.08	7176.21	1726.60	735.01	-1689.66	0.73
9091.00	86.51	271.90	7179.76	1820.52	739.09	-1783.50	3.09
9187.00	85.33	270.89	7186.59	1916.23	741.42	-1879.22	1.61
9281.00	87.07	271.34	7192.81	2009.97	743.25	-1973.00	1.92
9377.00	87.68	271.81	7197.20	2105.84	745.89	-2068.86	0.80
9473.00	90.77	272.64	7198.50	2201.80	749.62	-2164.76	3.33
9568.00	92.09	271.51	7196.13	2296.76	753.06	-2259.67	1.82

<b>MD</b> ft	<b>Inc</b> deg	<b>Azim</b> deg	<b>TVD</b> ft	<b>VS</b> ft	<b>+N/-S</b> ft	<b>+E/-W</b> ft	<b>DLS</b> °/100ft
9663.00	92.29	272.95	7192.50	2391.67	756.75	-2354.53	1.53
9759.00	91.08	274.17	7189.69	2487.63	762.71	-2450.30	1.79
9854.00	91.34	274.46	7187.68	2582.58	769.86	-2545.00	0.42
9949.00	91.98	275.33	7184.92	2677.49	777.96	-2639.62	1.13
10045.00	90.67	274.15	7182.70	2773.42	785.88	-2735.26	1.83
10140.00	90.13	274.20	7182.03	2868.40	792.80	-2830.00	0.57
10236.00	90.37	274.02	7181.61	2964.39	799.67	-2925.76	0.31
10331.00	91.08	273.75	7180.42	3059.37	806.11	-3020.53	0.80
10426.00	90.34	272.53	7179.25	3154.36	811.31	-3115.38	1.50
10521.00	86.58	271.74	7181.80	3249.29	814.84	-3210.26	4.04
10616.00	87.75	272.87	7186.50	3344.17	818.66	-3305.06	1.72
10711.00	90.20	276.60	7188.19	3439.09	826.50	-3399.70	4.70
10806.00	91.95	277.81	7186.41	3533.82	838.42	-3493.93	2.24
10901.00	92.68	276.55	7182.57	3628.49	850.28	-3588.10	1.54
10997.00	90.03	273.69	7180.29	3724.38	858.85	-3683.68	4.06
11092.00	89.46	273.04	7180.71	3819.38	864.42	-3778.51	0.91
11187.00	88.39	270.37	7182.49	3914.33	867.25	-3873.44	3.03
11280.00	88.96	269.90	7184.64	4007.18	867.47	-3966.42	0.80
11350.00	89.56	270.09	7185.54	4077.07	867.46	-4036.41	0.90

<b>MD</b> ft	<b>Inc</b> deg	<b>Azim</b> deg	<b>TVD</b> ft	<b>VS</b> ft	<b>+N/-S</b> ft	<b>+E/-W</b> ft	<b>DLS</b> °/100ft
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GAMMA RAY

2" = 100' FEET MD